

11-1-1987

# Maine Occupational Staffing Pattern for Hospitals, Date for April 1990

Maine Department of Labor

Maine Division of Economic Analysis and Research

Maine Bureau of Employment Security

Maine Labor Market Information Services

Follow this and additional works at: [https://digitalmaine.com/cwri\\_docs](https://digitalmaine.com/cwri_docs)

---

## Recommended Citation

Maine Department of Labor, Maine Division of Economic Analysis and Research, Maine Bureau of Employment Security, and Maine Labor Market Information Services, "Maine Occupational Staffing Pattern for Hospitals, Date for April 1990" (1987). *Center for Workforce Research and Information Documents*. 679.

[https://digitalmaine.com/cwri\\_docs/679](https://digitalmaine.com/cwri_docs/679)

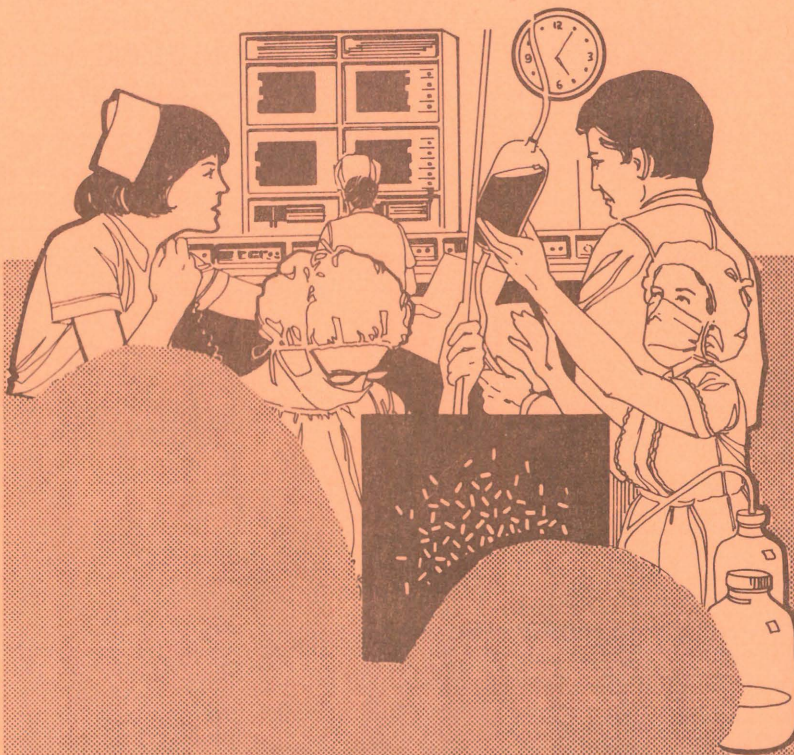
This Text is brought to you for free and open access by the Labor at Digital Maine. It has been accepted for inclusion in Center for Workforce Research and Information Documents by an authorized administrator of Digital Maine. For more information, please contact [statedocs@maine.gov](mailto:statedocs@maine.gov).



**LIBRARY USE ONLY**

# MAINE OCCUPATIONAL STAFFING PATTERN

For Hospitals



Data for April 1986





DEC 15 1981

LIBRARY OF THE  
UNITED STATES DEPARTMENT OF AGRICULTURE



1

LIBRARY USE ONLY

UNITED STATES DEPARTMENT OF AGRICULTURE

John R. McKernan, Jr.  
*Governor*



John Fitzsimmons  
*Commissioner*

DEPARTMENT OF LABOR  
BUREAU OF EMPLOYMENT SECURITY

Mary Lou Dyer  
*Executive Director*

MAINE OCCUPATIONAL STAFFING PATTERN  
FOR  
HOSPITALS

April 1986

*This labor market information is developed through a cooperative program  
with the U.S. Bureau of Labor Statistics*

BUREAU OF EMPLOYMENT SECURITY  
DIVISION OF ECONOMIC ANALYSIS AND RESEARCH  
Raynold A. Fongemie, Director

---

A Publication Series Developed by the Occupational Outlook and Job Information Section  
Ronald R. Leonard, Chief

---

ISSUED NOVEMBER 1987

AUGUSTA, MAINE

P.O. Box 309, Augusta, Maine 04330 — *Offices Located at 20 Union Street*



## PREFACE

We wish to express our thanks to all the hospitals which supplied the necessary occupational employment data on which the estimates presented herein are based. This publication would not have been possible without their cooperation.

We also wish to extend our thanks to the U.S. Department of Labor, both in Washington, D.C. and the regional level in Boston, Massachusetts, for their assistance in this federal-state cooperative effort.

For further information regarding this report please write to us or call 207-289-2271.

Raynold A. Fongemie, Division Director  
ECONOMIC ANALYSIS AND RESEARCH

November 1987  
Augusta, Maine 04330

101g



## TABLE OF CONTENTS

	<u>Page</u>
INTRODUCTION.....	1
HOSPITALS.....	3
NOTES ABOUT THE TABLE.....	11
METHODOLOGY.....	13
101g	





## INTRODUCTION

This publication is one of a continuing number of reports covering occupational employment for selected industries in Maine. The information in these reports relates to part of a comprehensive "labor market and occupational supply and demand information system" which is mandated by the Job Training Partnership Act of 1982. This federal legislation, coupled with the rapidly expanding public awareness of the need for more vocational training, has resulted in an unparalleled demand for current employment data and projections of future employment requirements by occupation.

The Occupational Employment Statistics (OES) Program is mandated as the system which supplies the occupational data leading to an "Occupational Supply and Demand Information System." This program is a federal-state endeavor involving many state employment security agencies throughout the nation, in conjunction with the U.S. Bureau of Labor Statistics. This OES program consists of three distinct, yet integral components: survey operations, industry-occupation matrices, and projections.

The first part of the OES program consists primarily of collecting occupational employment data by industry through a survey questionnaire mailed to a sample of establishments throughout the State. The sample data received is expanded, using a system of weights and benchmark factors, to produce statewide staffing patterns for the industry. These staffing patterns can then be applied to current or projected estimates of industrial employment to produce estimates of employment by occupation for the State or substate area.

This publication, a direct result of the survey phase of the OES program, contains the staffing pattern for hospitals. The actual employment data was collected for the week of the 12th of April 1986.

Other booklets have already been published covering nearly all wage and salary workers in Maine. Approximately one-third of the State's industries will be surveyed each year, so that the entire economy will be covered every three years. Using this cycle, employers are asked to provide occupational data only once every three years. This ensures that no part of the data is over three years old, and that significant changes in the staffing patterns of industries can be identified early, as the trend develops.

The information obtained from these surveys is used in the second phase of the OES program, constructing industry-occupation matrices covering all sectors of our economy. These matrices, in turn, provide the data base used to project occupational requirements and is one of the basic ingredients of the "Comprehensive Manpower Information System."



## Hospitals

Private, state, and municipal hospitals are all included in this survey. Excluded are hospitals run by the Federal Government such as the U.S. Veterans Administration Hospital at Togus.

There were 20,900 workers employed in these hospitals in April 1986. This actually denotes a small decline in employment of 2 percent since the previous survey in April of 1983. Although there was employment reported in 137 occupations, just over one-half of the total employment, 52 percent, was concentrated in just nine occupations. They were as follows:

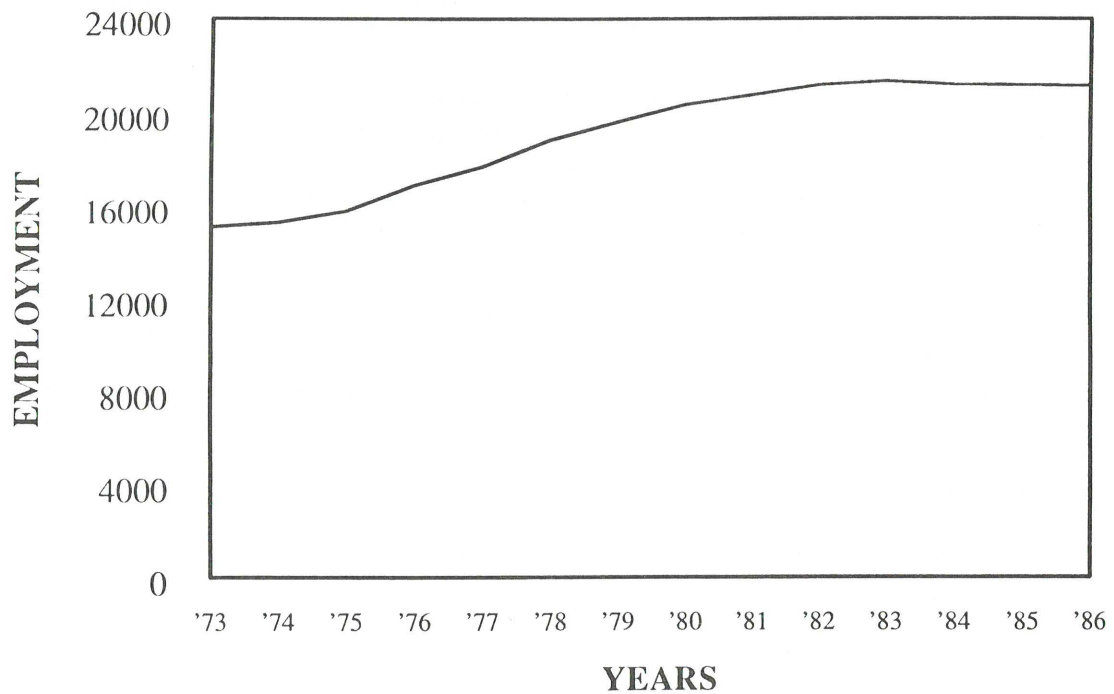
<u>Occupational Title</u>	<u>Employment</u>	<u>Percent of Total Employment</u>
Registered Nurses	5,170	24.74%
Licensed Practical Nurses	1,680	8.04
Nursing Aides, Orderlies, and Attendants	1,090	5.22
General Office Clerks	580	2.78
Maids and Housekeeping Cleaners	540	2.58
Psychiatric Aides	540	2.58
Medical and Clinical Laboratory Technologists	470	2.25
Janitors and Cleaners, except Maids and Housekeeping Cleaners	440	2.11
Physicians and Surgeons	420	2.01
TOTAL	10,930	52.31%

Each of the following twenty occupations were reported by at least three quarters of all responding hospitals:

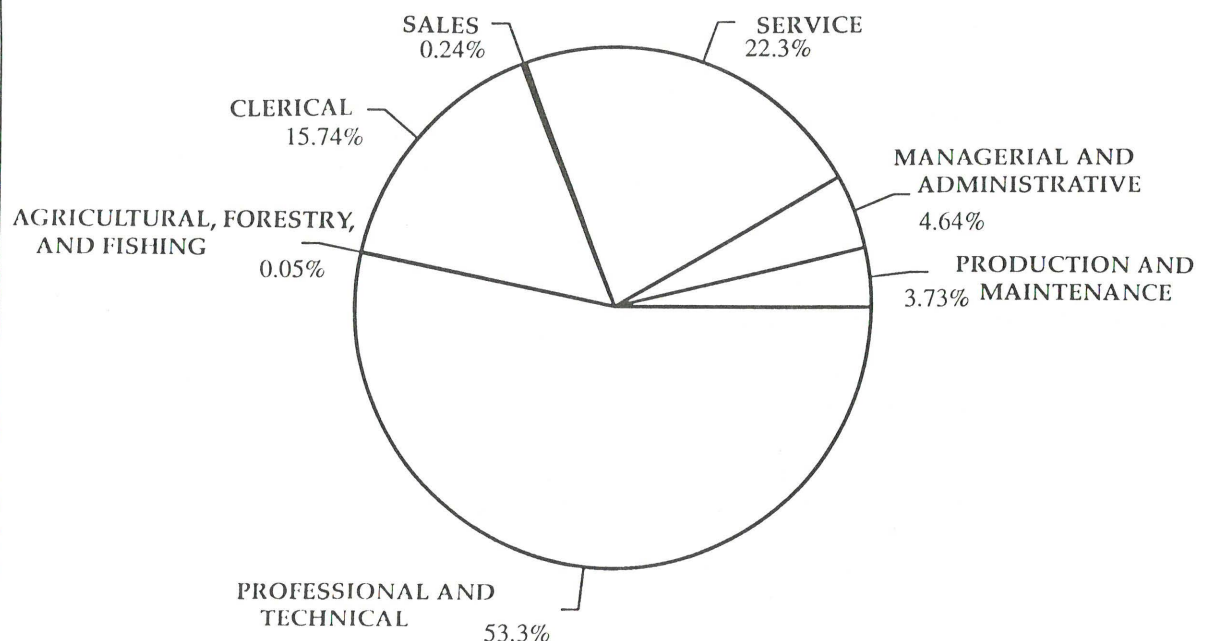
<u>Occupational Title</u>	<u>Percent of usable units reporting the occupation</u>
Registered Nurses	100%
Licensed Practical Nurses	96
Cooks, Institution or Cafeteria	95
General Managers and Top Executives	90
Medicine and Health Services Managers	90
Nursing Aides, Orderlies, and Attendants	90
Physical Therapists	88
Financial Managers	88
Medical and Clinical Laboratory Technicians	85
Social Workers, Medical and Psychiatric	85
Switchboard Operators	83
General Office Clerks	80
Personnel, Training, and Labor Relations Managers	80
Pharmacy Assistants	80
Medical and Clinical Laboratory Technologists	78
Medical Records Technicians and Technologists	78
Pharmacists	78
Billing, Cost, and Rate Clerks	75
Food Service and Lodging Managers	75
Maids and Housekeeping Cleaners	75



# ANNUAL AVERAGE WAGE AND SALARY EMPLOYMENT IN HOSPITALS



## PERCENTAGE OF EMPLOYMENT BY MAJOR OCCUPATIONAL CATEGORIES IN APRIL 1986



HOSPITALS  
April 1986

Occupation	Estimated Employ- ment	% of Total Empl.	Relative Error (%)	% of Units Reporting the Occupation
TOTAL ALL OCCUPATIONS.....	20,900	100.00	na	na
Managerial and Administrative Occupations.....	970	4.64	na	na
Financial Managers.....	60	0.29	4	88
Personnel, Training, and Labor Relations Managers.....	50	0.24	3	80
Purchasing Managers.....	30	0.14	5	65
Marketing, Advertising, and Public Relations Managers.....	30	0.14	8	48
Administrative Services Managers.....	50	0.24	24	30
Engineering, Mathematical, and Natural Sciences Managers.....	30	0.14	8	35
Medicine and Health Services Managers.....	310	1.48	8	90
Food Service and Lodging Managers.....	50	0.24	4	75
General Managers and Top Executives.....	130	0.62	8	90
All Other Managers and Administrators.....	230	1.10	na	na
Professional, Paraprofessional, and Technical Occupations.....	11,140	53.30	na	na
Accountants and Auditors.....	30	0.14	7	50
Budget Analysts.....	20	0.10	10	28
All Other Financial Specialists.....	20	0.10	7	20
Purchasing Agents, except Wholesale, Retail, and Farm Products.....	30	0.14	7	40
Personnel, Training, and Labor Relations Specialists.....	30	0.14	5	43
Compliance Officers and Enforcement Inspectors, except Construction.....	20	0.10	14	20
All Other Management Support Workers.....	30	0.14	na	na
Engineers.....	20	0.10	na	na
Engineering and Related Technicians and Technologists.....	20	0.10	na	na
Biological Scientists.....	10	0.05	26	10
All Other Life Scientists.....	20	0.10	na	na
Systems Analysts, Electronic Data Processing... Computer Programmers.....	10	0.05	16	10
Computer Programmer Aides.....	20	0.10	8	30
Psychologists.....	30	0.14	11	33
Social Workers, Medical and Psychiatric.....	40	0.19	15	25
Social Workers, except Medical and Psychiatric. Social Service Technicians.....	220	1.05	4	85
Clergy.....	20	0.10	12	28
Nursing Instructors.....	50	0.24	31	20
	20	0.10	11	25
	70	0.33	7	33

## Hospitals (continued)

Occupation	Estimated Employ- ment	% of Total Empl.	Relative Error (%)	% of Units Reporting the Occupation
Teachers and Instructors, Vocational Education and Training.....	30	0.14	12	13
All Other Teachers and Instructors.....	30	0.14	na	na
Librarians, Professional.....	30	0.14	6	38
Technical Assistants, Library.....	10	0.05	11	13
Physicians and Surgeons.....	420	2.01	9	53
All Other Health Diagnosing and Treating Practitioners.....	10	0.05	na	na
Respiratory Therapists.....	220	1.05	5	55
Occupational Therapists.....	60	0.29	5	43
Physical Therapists.....	170	0.81	3	88
Speech Pathologists and Audiologists.....	20	0.10	14	15
Recreational Therapists.....	10	0.05	23	8
Registered Nurses.....	5,170	24.74	2	100
Licensed Practical Nurses.....	1,680	8.04	4	96
Emergency Medical Technicians.....	50	0.24	23	10
Physician's Assistants.....	70	0.33	9	45
Pharmacists.....	120	0.57	3	78
Dietitians and Nutritionists.....	60	0.29	4	65
Dietetic Technicians.....	120	0.57	6	60
Medical and Clinical Laboratory Technologists..	470	2.25	4	78
Medical and Clinical Laboratory Technicians....	350	1.67	6	85
Medical Records Technicians and Technologists..	190	0.91	5	78
Nuclear Medicine Technologists.....	60	0.29	8	50
Radiologic Technologists.....	200	0.96	8	53
Radiologic Technicians.....	220	1.05	7	63
Electroencephalograph Technicians and Technologists.....	20	0.10	10	25
Electrocardiograph Technicians and Technologists.....	70	0.33	5	50
Surgical Technicians.....	180	0.86	5	68
All Other Health Professionals, Parapro- fessionals, and Technicians.....	180	0.86	na	na
Public Relations Specialists and Publicity Writers.....	20	0.10	11	23
Photographers.....	10	0.05	10	13
All Other Professional, Paraprofessional, and Technical Workers.....	160	0.77	21	13
Sales and Related Occupations.....	50	0.24	na	na
Cashiers.....	50	0.24	11	40
Clerical and Administrative Support Occupations..	3,290	15.74	na	na
First Line Supervisors and Manager/Super- visors, Clerical and Administrative Support Occupations.....	120	0.57	8	63
Adjustment Clerks.....	20	0.10	20	13
Medical Secretaries.....	150	0.72	13	63
All Other Secretaries.....	390	1.87	7	58

## Hospitals (continued)

Occupation	Estimated Employ- ment	% of Total Empl.	Relative Error (%)	% of Units Reporting the Occupation
Stenographers.....	110	0.53	9	23
Receptionists and Information Clerks.....	140	0.67	5	58
Typists, except Word Processing Equipment.....	240	1.15	8	65
Typists, Word Processing Equipment.....	40	0.19	13	25
Personnel Clerks, except Payroll and Time- keeping.....	30	0.14	10	38
File Clerks.....	90	0.43	7	30
Order Clerks, Materials, Merchandise, and Service.....	20	0.10	12	28
Procurement Clerks.....	20	0.10	10	28
Statistical Clerks.....	70	0.33	12	33
Interviewing Clerks, except Personnel and Social Welfare.....	260	1.24	6	55
Bookkeeping, Accounting, and Auditing Clerks...	90	0.43	6	65
Payroll and Timekeeping Clerks.....	30	0.14	5	58
Billing, Cost, and Rate Clerks.....	260	1.24	4	75
General Office Clerks.....	580	2.78	5	80
Billing, Posting, and Calculating Machine Operators.....	10	0.05	22	13
Computer Operators, except Peripheral Equipment.....	50	0.24	11	33
Data Entry Keyers, except Composing.....	70	0.33	8	48
All Other Office Machine Operators.....	10	0.05	na	na
Switchboard Operators.....	240	1.15	4	83
Stock Clerks, Stockroom, Warehouse, or Storage Yard.....	100	0.48	8	65
Traffic, Shipping, and Receiving Clerks.....	30	0.14	11	28
All Other Material Recording, Scheduling, and Distributing Workers.....	10	0.05	na	na
All Other Clerical and Administrative Support Workers.....	110	0.53	na	na
Service Occupations.....	4,660	22.30	na	na
Housekeepers.....	160	0.77	14	73
All Other Service Supervisors and Manager/ Supervisors.....	50	0.24	8	40
Guards and Watch Guards.....	70	0.33	13	30
Food Servers, Outside.....	310	1.48	8	45
Dining Room and Cafeteria Attendants, and Bartender Helpers.....	80	0.38	12	18
Counter Attendants, Lunchroom, Coffee Shop, or Cafeteria.....	70	0.33	9	30
Bakers, Bread and Pastry.....	10	0.05	12	23
Cooks, Institution or Cafeteria.....	190	0.91	4	95
Food Preparation Workers.....	330	1.58	5	70
All Other Food Service Workers.....	90	0.43	na	na
Medical Assistants.....	60	0.29	16	25
Nursing Aides, Orderlies, and Attendants.....	1,090	5.22	4	90
Psychiatric Aides.....	540	2.58	24	15



## Hospitals (continued)

Occupation	Estimated Employ- ment	% of Total Empl.	Relative Error (%)	% of Units Reporting the Occupation
Physical and Corrective Therapy Assistants and Aides.....	60	0.29	6	50
Occupational Therapy Assistants and Aides.....	20	0.10	11	20
Ambulance Drivers and Attendants, except Emergency Medical Technicians.....	20	0.10	35	8
Pharmacy Assistants.....	180	0.86	3	80
All Other Health Service Workers.....	210	1.00	na	na
Maids and Housekeeping Cleaners.....	540	2.58	8	75
Janitors and Cleaners, except Maids and Housekeeping Cleaners.....	440	2.11	13	55
All Other Cleaning and Building Service Workers, except Private Households.....	130	0.62	na	na
All Other Service Workers.....	10	0.05	na	na
Agricultural, Forestry, Fishing, and Related Occupations.....	10	0.05	na	na
Gardeners and Groundskeepers, except Farm.....	10	0.05	10	15
Production, Construction, Operating, Main- tenance, and Material Handling Occupations.....	780	3.73	na	na
First Line Supervisors and Manager/Super- visors, Mechanics, Installers, and Repairers.....	30	0.14	11	35
All Other First Line Supervisors and Manager/ Supervisors, Production, Construction, Maintenance, and Related.....	30	0.14	15	23
Machinery Maintenance Mechanics.....	10	0.05	27	8
Maintenance Repairers, General Utility.....	140	0.67	6	73
Heating, Air Conditioning, and Refrigeration Mechanics and Installers.....	20	0.10	16	20
Electromedical and Biomedical Equipment Repairers.....	10	0.05	16	13
Menders, Garments, Linens, and Related.....	10	0.05	16	15
All Other Mechanics, Installers, and Repairers.	40	0.19	na	na
Carpenters.....	30	0.14	9	23
Electricians.....	20	0.10	3	28
Painters and Paperhangers, Construction and Maintenance.....	30	0.14	6	33
Plumbers, Pipefitters, and Steamfitters.....	10	0.05	9	23
All Other Construction and Extractive Workers, except Helpers.....	10	0.05	na	na
Precision Production Occupations.....	10	0.05	17	10
Laundry and Drycleaning Machine Operators and Tenders, except Pressing.....	110	0.53	10	48
Pressing Machine Operators and Tenders, Textile, Garment, and Related Materials.....	20	0.10	20	8
Boiler Operators and Tenders, Low Pressure.....	40	0.19	11	28

## Hospitals (continued)

Occupation	Estimated Employ- ment	% of Total Empl.	Relative Error (%)	% of Units Reporting the Occupation
All Other Machine Setters and Set-up Operators.	10	0.05	15	10
All Other Machine Operators and Tenders.....	40	0.19	15	10
Hand Working Occupations, including Assemblers and Fabricators.....	40	0.19	23	8
Stationary Engineers.....	20	0.10	25	8
Truck Drivers, Light, including Delivery and Route Workers.....	10	0.05	18	10
All Other Motor Vehicle Operators.....	10	0.05	19	13
All Other Transportation and Material Moving Equipment Operators.....	30	0.14	na	na
Helpers, Laborers, and Material Movers, Hand, excluding Agriculture and Forestry Laborers..	50	0.24	21	10

101g



## NOTES ABOUT THE TABLE

### Estimated Employment

If only one or two establishments reported a particular occupation, the occupational estimate is not shown separately, but added to the appropriate "All Other" or residual category. The "TOTAL ALL OCCUPATIONS" estimate for each industry is based on a benchmark figure derived from the second quarter 1986 ES-202 report of Employment, Wages, and Contributions covered by the Maine Employment Security Law.

### Percent of Total Employment

The detail in the column entitled "% of Total Empl." may not add to totals due to rounding.

### Relative Error

The relative error was computed only for specific occupations and not for residual categories nor for occupational groupings. If the relative error of an occupation exceeded 50 percent, the employment for that occupation was added to the residual category that was relevant to it. The relative error relates to the actual estimate before rounding. For an example of how the relative error is applied, see Accuracy of Occupational Employment Data in the METHODOLOGY.

### Percent of Establishments Reporting the Occupation

The percent of establishments reporting each occupation could not be readily calculated for groups of occupations, but only for specific occupations.

### Abbreviations

na - not applicable

Empl. - Employment

101g





## METHODOLOGY

### The Sample

The April 1985 report of Employment, Wages, and Contributions covered by the Maine Employment Security Law was used as the sampling frame for the Occupational Employment Statistics (OES) Program's survey of hospitals. All municipal, state, and private hospitals employing more than three workers were included in this survey. This amounted to 54 units employing a total of 21,163 employees. Hospitals run by the Federal Government were excluded from this report as they were included in the survey of Federal Government.

### The Survey

The survey consisted of an initial mailing and two follow-up mailings to non-respondents. In addition, phone calls and personal visits were made to those employers whose responses were critical for valid estimates. The final sample consisted of 52 units employing 20,951 workers. Usable responses were received from 40 units, or 76.9 percent of the total number of hospitals included in this survey. These responses represented 84.8 percent of the total employment in hospitals, or 17,769 workers.

### The Screening, Editing, and Estimating Procedures

Each completed questionnaire returned was edited and screened both manually and mechanically for consistency and accuracy. The resulting "clean data file" served as the basis for calculating estimates. The "clean" employer questionnaires were separated into seven size groups, the size being determined by the number of persons employed by each. The data was then tied into the universe employment for the report month of April 1986. These universe, or benchmark, figures came from the second quarter 1986 ES-202 report of Employment, Wages, and Contributions covered by the Maine Employment Security Law. The total survey data by size class was divided into the universe data for corresponding size classes. This produced benchmark factors which were applied to the occupational data, thus accounting for any non-responding units, and any units not included in the sample. The occupational estimates were summed across size classes to the industry total and rounded to the nearest ten. The percent of occupational distribution was then calculated.

### Accuracy of Occupational Employment Data

There are two types of errors which affect the accuracy of the estimates published here--sampling and nonsampling errors. Sampling error is a specific arithmetic measure of the precision of an estimate. It is the difference between the estimate computed from the sample data and the result that would be obtained if the same methods were used to collect identical information from the entire population or universe with no nonresponse. The relative error entries listed in this report are the sampling errors of each occupation expressed as a percent of that occupational estimate. In other words, relative error means that the chances are two out of three (a 68 percent confidence level) that the results of a comparable full-scale data

collection (the universe) with 100 percent response, using the same survey approach would not differ by more than the percent error shown. The chances are 19 out of 20 (a 95 percent confidence level) that the results would not differ by more than twice the percent error shown. For example, it is estimated in this report that there are 220 respiratory therapists employed in hospitals with a 5 percent relative error. Thus, at a 68 percent confidence level, it is assured that the results of a full-scale count of respiratory therapists in this industry would not differ from this estimate by more than 11 workers ( $220 \times .05$ ). At a 95 percent confidence level, the universe count would not differ from the estimate by more than 10 percent of 220, or 22 workers.

The nonsampling error results from external factors in a survey rather than from the fact that a sampling technique was used. Examples of these errors are: response errors, processing errors, computational errors, etc. The possibility of these errors was recognized from the start of the survey and every effort was made to avoid them.

101g



# DIVISION OF ECONOMIC ANALYSIS AND RESEARCH

## LABOR MARKET INFORMATION SERVICES PEOPLE TO KNOW...

Administrative Office - 20 Union Street, Augusta

Telephone (207) 289-2271

**Paul E. Luce, Chief**  
Labor Market Information  
Field Services Section

**Ronald R. Leonard, Chief**  
Occupational Outlook and  
Job Information Section

**Dana A. Evans, Chief**  
Labor Market Evaluation  
and Planning Section

**Michael A. Adams, Chief**  
Data Systems and Operations  
Review Section

**Jean S. Martin, Manager**  
Maine Census Data Center Program

### District Managers for Area Labor Market Information Services

**Kenneth R. Bridges, Manager**  
Central District  
20 Union Street  
Augusta, ME 04330  
Tel. 289-2271

**Manager**  
North Central District  
45 Oak Street  
Bangor, ME 04401  
Tel. 942-6351

**Manager**  
Western District  
522 Lisbon Street  
Lewiston, ME 04240  
Tel. 783-9171

**Manager**  
Southern District  
522 Lisbon Street  
Lewiston, ME 04240  
Tel. 783-9171

**Alan J. Cox, Manager**  
Northeastern District  
20 Union Street  
Augusta, ME 04330  
Tel. 289-2271

---

**Raynold A. Fongemie, Division Director**  
Economic Analysis and Research  
Maine Department of Labor  
Bureau of Employment Security  
20 Union Street  
Augusta, ME 04330





*"For Qualified Workers*

*Contact Your Local*

*Bureau of Employment Security*

*Job Service Office"*

**LABOR MARKET INFORMATION SERVICES**



For further information contact: Division of Economic Analysis and Research - 20 Union Street - Augusta, Maine 04330 (207) 289-2271